

ABOUT THE BOOK

Integrated Pest Management: Concepts, Strategies and Advances is a comprehensive textbook that provides a contemporary understanding of the principles and practices of sustainable pest management. Developed in accordance with the recommendations of the ICAR Sixth Deans' Committee and aligned with the vision of the National Education Policy (NEP) 2020, the book integrates fundamental concepts with recent technological advancements to support competency-based learning in agriculture.

The book systematically covers the status and significance of arthropod pests, crop damage assessment, Economic Injury Levels (EIL), Economic Threshold Levels (ETL), pest identification and diagnosis, and the core principles of Integrated Pest Management (IPM). It presents a comprehensive account of major pest management strategies, including host plant resistance, cultural, biological, mechanical, legislative, and chemical control, emphasizing their integration for environmentally sound and economically viable crop protection.

Special emphasis has been placed on the integrated management of insect pests of field crops, vegetable crops, fruit crops, plantation crops, ornamental plants, spices, condiments, household environments, and stored products. The book also incorporates recent advances in crop protection, including pest surveillance and forecasting, precision agriculture, artificial intelligence, drone-assisted pest management, botanical and microbial pesticides, digital decision support systems, and RNA interference (RNAi)-based technologies, enabling readers to understand both conventional and emerging approaches to pest management.

Designed with a logical organization, clear illustrations, and a student-friendly approach, the book combines scientific accuracy with practical relevance. Learning objectives, concise explanations, and updated content make it an effective resource for classroom teaching, selflearning, and competitive examinations.

Primarily intended for undergraduate students of agriculture and allied sciences, this book will also serve as a valuable reference for postgraduate students, teachers, researchers, extension personnel, and crop protection professionals seeking a reliable and up-to-date resource on Integrated Pest Management



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Integrated Pest Management

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CONTENTS

<i>Ch. No.</i>	<i>Chapter Name</i>	<i>Pages</i>
1.	Concepts of Arthropod Pest Status, Crop Damage and Economic Threshold Levels	1—19
	Arthropod diversity in agriculture; Categories of insect pests (major, minor, occasional); Categories of insect pests and diseases; Economic importance and pest risk analysis; Types of crop damage (chewing, sucking, boring, mining, galling); Economic Injury Level (EIL); Economic Threshold Level (ETL); Calculation and dynamics of EIL; Importance of ETL in pest management decisions	
2.	Pest and Disease Identification and Advancements in Diagnostic Technologies	20—35
	Identification of insect pests and diseases; Methods of detection and diagnosis; Symptom-based identification; Use of imaging techniques; Molecular diagnostic tools (PCR, DNA barcoding).	
3.	Introduction to Integrated Pest Management (IPM)	36—52
	Definition and concept of IPM; History and evolution; Importance and principles of IPM; Components and tools of IPM.	
4.	Pest and Disease Management Methods	53—112
	Host plant resistance; Cultural control; Mechanical and physical control; Legislative control; Biological control; Chemical control.	
5.	Insect Pests of Field Crops	113—132
	Pests of cereals; Pests of pulses; Pests of oilseeds; Pests of fibre crops; Biology, nature of damage and management strategies.	

6. Insect Pests of Vegetable Crops

133—136

Solanaceous vegetables; Cucurbitaceous vegetables; Cruciferous vegetables; Major pests, symptoms and integrated management practices.

7. Insect Pests of Fruit, Plantation, Ornamental Crops, Spices and Condiments

137—154

Fruit crops (mango, citrus, apple, banana); Plantation crops (tea, coffee, coconut); Ornamentals; Spices and condiments; Pest-specific management.

8. Structural Entomology and Household Pests

155—160

Cockroaches, termites, ants, mosquitoes, bed bugs; Structural damage and public health importance; Preventive and curative management.

9. Stored Grain Losses, Pests and Storage Management

161—170

Quantitative and qualitative losses; Factors affecting grain deterioration; Role of abiotic and biotic factors. Insect and mite pests of stored grains; Rodents, birds and microorganisms associated with stored grains; Grain storage structures and storage methods; Sanitation, fumigation and safe storage practices.

10. Advancements in Pest Management and IPM Technologies

171—178

Monitoring and forecasting; Development and validation of IPM modules; Case studies of IPM programs; Botanical and microbial pesticides; AI, drones, precision agriculture; RNAi-based pest control.